

Protocol Changes for Statewide Treatment Protocols, Version 11.01

Effective June 15, 2013

#	Protocol or Appendix	Change	Reason
1	General Principles for Specific Skills	Added #14: EMS crews should not begin or administer interventions that would require medical assessment if a patient is being brought to an environment where that will not be provided; for example, giving IV narcotics to a patient who is about to be left at home. Note that this principle does not apply to giving medications to a patient being brought to a facility where medical or nursing personnel will be available to assess the patient, such as a physician's office or a skilled nursing facility.	Clarification of the role of EMS as medical care providers.
2	General Principles for Specific Skills	Added #15: Recent advances in resuscitation science have increased the potential for survival for victims of out-of-hospital cardiac arrest (OOHCA). Some systems in Massachusetts already follow and monitor their OOHCA survival rate, and have achieved excellent results comparable to national norms. Ideally every EMS system should determine and follow its OOHCA survival rate, and strive to improve it. In general, for services not already monitoring and taking steps to improve their OOHCA outcomes, this would involve the following steps: dispatch instruction to provide hands-only CPR if the patient is unconscious and not breathing normally, a strong emphasis on continuous compressions to maintain a compression fraction of 80%, delay of intubation to after the first 8 minutes of CPR in primary cardiac arrest so as not to interrupt compressions, field and then in-hospital hypothermia for ROSC, and rapid 12-lead electrocardiography after ROSC to determine if STEMI POE should be used.	Monitoring out of hospital cardiac arrest care
3	1.1 Asystole	Added language under ALS-P Standing Orders: Note: if Epinephrine 1:10,000 is unavailable due to a drug shortage - Vasopressin 40 units may be substituted and given every 20 minutes IV or IO in place of Epinephrine	To handle drug shortages of Epinephrine
4	1.2, 1.3, 1.4, 1.9, 1.11, 3.14 and 5.13	In Standing orders for morphine and fentanyl, deleted the statement "This is a one time dose option" and replaced it with "Medication dose may be given in divided doses up to the maximum."	Allows titration of pain control under standing orders.
5	1.2, 1.3, 1.4, 1.5, 1.9, 1.11, 3.7, 3.14, 4.2 and 5.13	Fentanyl links to drug reference	Technical fix
6	1.2, 1.3, 1.4, 1.5, 1.9, 1.11, 3.7, 3.14, 4.2 and 5.13 and in the Fentanyl drug reference	IM route added to Fentanyl	Appropriate route for administration

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7	1.4, 1.6, 3.2 and the drug reference	Epinephrine Infusion - Administer 1 mcg to 10 mcg per minute IV or IO. (for example: mix 1 mg of 1:1000 Epinephrine in 250 ml Normal Saline). (15 micro drops/minute = 1 mcg / min.)	Standardizing language
8	1.5 ACS	In Standing orders for fentanyl, deleted the statement "This is a one time dose option" and replaced it with "Medication dose may be given in divided doses up to the maximum."	Allows titration of pain control under standing orders.
9	1.5 ACS	Added to #3 <u>Avoid hyperoxygenation:</u> administer oxygen using appropriate oxygen delivery device, as clinically indicated. <u>If pulse oximetry available, give supplemental oxygen only if the oxygen saturation level is less than 94%.</u>	Hyperoxygenation causes both coronary and systemic vasoconstriction, resulting in decreasing coronary blood flow and increases coronary vascular Resistance. In line with AHA guidelines
10	1.5 ACS	Removed NTG 0.3 mg from MCO section	Standardizing dosing
11	1.6 ROSC	Added to #4 <u>Avoid hyperoxygenation:</u> administer oxygen using appropriate oxygen delivery device, as clinically indicated. <u>If pulse oximetry available, give supplemental oxygen only if the oxygen saturation level is less than 94%.</u>	Hyperoxygenation causes both coronary and systemic vasoconstriction, resulting in decreasing coronary blood flow and increases coronary vascular resistance
12	1.6 and 1.11	Added <u>for example</u> to drip information: <u>Amiodarone 1 mg./min. IV drip.,</u> for example:100mg/100ml - 1mg/minute	Standardize dosing option in ALS-P and MCO in 1.6. As MCO only in 1.11
13	3.2 Allergic Reaction/Anaphylaxis	IO route added to Diphenhydramine.	Appropriate route for administration
14	3.2 Allergic Reaction/Anaphylaxis	Added into ALS-P Standing Orders: Hydrocortisone 100 mg. IV, IM, or IO or Methylprednisolone 125 mg. IV, IM or IO.	Appropriate therapy for severe distress
15	3.2 Allergic Reaction/Anaphylaxis	As a reminder: <u>BY AUTOINJECTOR ONLY</u> added to Epinephrine 1:1,000: 0.15 or 0.3 mg IM. in Medical Control section	Safety reminder
16	3.4 Bronchospasm/Respiratory Distress	Added under d. in the ALS-P Standing orders: In a patient with a known diagnosis of asthma or COPD, who <i>does not have</i> history or findings concerning for congestive heart failure, give Hydrocortisone 100 mg. IV, IM, or IO or Methylprednisolone 125 mg. IV, IM or IO	Appropriate therapy for severe distress by reducing the inflammation associated with bronchospasm
17	3.4 Bronchospasm/Respiratory Distress	Added under f. in the ALS-P Standing orders f. In patients 40 years old or younger, Epinephrine 0.15 mg-0.3 mg IM* <u>BY AUTOINJECTOR ONLY</u> as a one time dose, contact medical control for additional dosing	Effective treatment to those 40 years old and younger in the treatment of bronchospasm/respiratory distress due to asthma
18	3.4 Bronchospasm	As a reminder: <u>BY AUTOINJECTOR ONLY</u> added to Epinephrine 1:1,000: 0.15 or 0.3 mg IM. in Medical Control section	Safety reminder
19	3.9 Seizures	Added under ALS-P Standing orders Midazolam 2.5- 5 mg slow IV push or IM	Another option for benzo therapy, shown to work faster in some studies

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20	3.11 Acute Stroke	Added to #3 <u>Avoid hyperoxygenation</u> : administer oxygen using appropriate oxygen delivery device, as clinically indicated. <u>If pulse oximetry available, give supplemental oxygen only if the oxygen saturation level is less than 94%.</u>	Hyperoxygenation causes both coronary and systemic vasoconstriction, resulting in decreasing coronary blood flow and increases coronary vascular resistance
21	3.13 Toxicology/ Poisoning/SA/OD	Under Basic procedures #3, the dose 0.4- has been removed. The protocol now reads Administer Naloxone 2 mg nasal via atomizer.	Correct dosing as it was under the special project waivers.
22	3.14 Adult pain and nausea management	Added “po (ODT)” as a route for ondansetron both as standing order and option.	A reasonable route and formulation which can offer therapy without threat of needle-stick injury
23	4.2 Burns/Inhalation Injuries	Added to ALS-P Standing Orders: e. In a patient with hypotension, altered mental status, or other indication of cyanide toxicity, who may have experienced smoke inhalation, if carried, consider giving Hydroxocobalamin 5 gm IV over 15 minutes in an adult, and 70 mg/kg (to maximum 5 gm.) IV over 15 minutes in a pediatric patient.	Effective treatment in patients experiencing acute cyanide poisoning
24	4.3 Head Trauma	These lines has been removed the initial paragraph: Hyperventilation may help brain injury by reducing intracranial pressure. Hyperventilate the patient in suspected cases of herniation syndrome (e.g. - decorticate posturing; decerebrate posturing; fixed, dilated pupils, etc.). This line was removed from assessment /treatment priorities in Basic Procedures: Consider hyperventilation if clinically appropriate with a significant closed head injury and signs of herniation syndrome.	No longer scientifically supported, hyperventilation can cause increased intracranial pressure and decreased peripheral blood flow
25	4.6 Soft tissue/crush injury	Under Basic Procedures- #1 the words (direct pressure, pressure points, etc) has been removed	To avoid contradicting the new changes for hemorrhage control (i.e. direct pressure followed by tourniquets)
26	4.6 Soft tissue/crush injury	Under Basic Procedures #3 the wording If injury permits-has been added.#3 reads If suspect severe crushing injury/compartment syndrome, <u>if injury permits</u> :	This allows the use of tourniquets if there is no other way to stop hemorrhage.
27	4.7 Spinal Column/ Cord Injuries	These lines have been deleted from Basic procedures and ALS standing orders: consider hyperventilation with 100% oxygen with B-V-M if associated with a significant closed head injury and signs of herniation syndrome.	No longer scientifically supported, hyperventilation can cause increased intracranial pressure and decreased peripheral blood flow
28	4.7 Spinal Column/ Cord Injuries	non penetrating added to the 3 rd bullet – when considering immobilization it now reads: evidence of significant <u>non penetrating</u> trauma above the clavicles	Patients with penetrating trauma who are immobilized had worse outcomes
29	4.7 Spinal Column/ Cord Injuries	Deleted phrase “including adult fall from standing” from the high risk factors for determining possible spinal injury(1 st page of protocol 4.7)	Fall from standing is only a risk in persons over 65 years of age

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30	4.10 Traumatic Amputations	This language was added under treatment Basic Procedures: Control/stop any identified life threatening hemorrhage. <u>If other methods cannot stop the bleeding apply an appropriate tourniquet. Document the exact time of tourniquet application.</u>	The International Trauma Life Support for Emergency Care Providers recommends the use of tourniquets to control life threatening bleeding; pressure points and elevation have been removed.
31	5.1, 5.2, 5.3 in MCO section and 5.5 ALS-P section	Epinephrine Infusion: Administer 0.1-1 mcg/kg/min IV or IO for example: mix 1mg of Epinephrine 1:1000 in 250mL of Normal Saline, (15 micro drops/minute = 1 mcg / min.)	IV and IO routes added to the Epinephrine infusion clarifying the routes for administration
32	5.2 Pediatric Anaphylaxis	Added to ALS-P Standing Orders: c. Give Hydrocortisone 2 mg./kg. to maximum 100 mg. IV, IM or IO or Methylprednisolone 2 mg./kg. to maximum 125 mg. IV, IM or IO	Appropriate therapy-begins to decrease inflammation
33	5.2 Pediatric Anaphylaxis	IO route added to Diphenhydramine	Appropriate route for administration
34	5.4 Pediatric Bronchospasm/Respiratory Distress	Added under 2c. in the ALS-P Standing orders: For a child age 2 years old or more who has a known diagnosis of asthma, Hydrocortisone 2 mg/kg. to maximum 100 mg. IV, IM or IO or Methylprednisolone 2 mg/kg. to maximum 125 mg. IV, IM or IO	Appropriate therapy-works by reducing the inflammation associated with bronchospasm
35	5.7 Pediatric Seizures	Added to ALS-P Standing Orders: Midazolam 0.05 mg/kg IV, IO or IM to maximum single dose of 4 mg	To address the ongoing medication shortages
36	5.13 Pediatric pain and nausea management	Added “po (ODT)” as a route for ondansetron both as standing order and option.	A reasonable route and formulation which can offer therapy without threat of needle-stick injury
37	Appendix D Emergent Airway	This appendix has been renamed Difficult Airway Protocol	More representative of when this Appendix process should be utilized
38	Appendix N	Added the category “antidotes” to Part 4.2 – Approved Medications and Medication Classes	Technical correction
39	Appendix T Nerve Agent dosing and reference table (last page of Appendix T	Added <u>Duodote</u> to NOTE-#1 on the last page of Appendix T: <u>NOTE</u> : Mark I kits and <u>Duodote</u> are not approved for pediatric use; however, they should be used as initial therapy in circumstances for children with severe life-threatening nerve agent toxicity when IV therapy is not available. This assumes 0.8 inch needle insertion depth.	Accepted treatment in circumstances for children with severe life-threatening nerve agent toxicity.
40	Appendix U Fire Rehabilitation and Tactical EMS Principles	Technical fix 3 rd paragraph 305 CMR changed to 105 CMR 170.020	Technical correction
41	Drug Reference Midazolam	Removed WMD and added in Appendix T-Nerve Agent Dosing & Reference Tables: Nasal administration is permitted by the State Treatment Protocols.	reflects protocol terminology
42	All protocols, appendixes and drug references	Removed “trailing zeros” from medication dosing	Safety recommendation of Joint Commission - consistent with hospitals and other medical providers practice

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43	All protocols	Removed the wording "if available" from after capnography in all protocols. The line now reads: Provide advanced airway management and perform capnography.	Waveform capnography is now required for intubating services as of January 1, 2013